

ship Sept 2

Work Order ID 149881

149881

Page 1

Friday, August 05, 2016 2:49:37 PM Updated for ECN 16-028

Item ID: 649.4701 AUG 11 2016 Slt Accept *N900040100* Setup Start *NS1*
Revision ID: Stop *NS2*
Item Name: AW119 Cable Cutter System
Start Date: 8/26/2016 Start Qty: 1.00 *1* Cust Item ID:
Required Date: 9/2/2016 Req'd Qty: 1.00 *1* Customer:
Reference:

Approvals: Process Plan: dm Date: 16/8/05 Tooling: Date: Run Start *NR1*
QC: Date: SPC (Y/N): Date: Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
649.4700	B3								
100	Document Control	0.00							
100	DOCUMENT CONTROL								
DC	Memo	0.00							
Doc.Control -USB or Paperwork	Photocopy bluefile & type labels per PPP 649.4701								
110	Pick Kit	0.00							
110									
Packaging	Memo	0.00							
Packaging									
120	QC4- 100% Inspect kits for completeness	0.00							
120									
QC	Memo	0.01							
Quality Control									

AUG 17 2016

AUG 30 2016

DAS
27
9-89

DAS
21
9-89

16-08-18

68-6 DAS
9 28 8/18/2016
DAS
9-89

DAS
27
9-89

AUG 30 2016

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By _____ Lead hand / Supervisor Approval Verification _____ QC / QA Coordinator Approval _____		
Description Work Order Deviation				Disposition					
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐							
		OTHER : _____							

Work Order ID 149881***149881***

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Friday, August 05, 2016 2:49:37 PM

Item ID: 649.4701

Accept

N900040100Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: AW119 Cable Cutter System

Start Date: 8/26/2016 Start Qty: 1.00

1

Cust Item ID:

Required Date: 9/2/2016 Req'd Qty: 1.00

1

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start ***NR1***

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130		0.00							
130	Packaging								
Packaging	Memo	0.00							
Packaging	Identify and pack for shipping as per PPP 649.4701 Location: _____								
140	QC21- Final Inspection - Work Order Release	0.00							
140									
QC	Memo	0.02							
Quality Control									

DAS
27
9-89DAS
28
9-89

AUG 30 2016

DAS
21
9-89

AUG 30 2016

Lm 16/08/30

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :				MRB (QSI042) Approval	
Description Work Order Deviation				Disposition				Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐	☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐			
Design ☐	☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐			
Doc/Data ☐	☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐			
Equip/Tooling ☐	☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐			
Handling/Pre ☐	☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐			
Material ☐	☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐			
Internal Transport ☐	☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐			
Tribal Knowledge ☐	☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐			
LOA ☐	☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐			
Substation ☐	☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐			
Past Expiry Date ☐	☐	Manufacturing Process ☐	OTHER :						
Misidentified ☐	☐	Past Due ☐							

Picklist Print

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Page 1

Work Order ID: 149881

149881

Parent Item: 649.4701

649 4701

Parent Item Name: AW119 Cable Cutter System

Start Date: 8/26/2016

Required Date: 9/2/2016

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP REV:A 12.11.05 NEW ISSUE DD VERF:JLM IPP
REV:B AS PER ECR 12-54 13-07-09 JLM VERIFIED BY:DD

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
649.4902 *649 4902* Lower Cutter Assy		Manufactured	No				Each	18.0000	**	1			DAS 6 9-89 DAS 28 9-89
				<u>Location</u>				<u>Loc Qty</u>		<u>Loc Code</u>			
				cck026				18					
				106196				1					
				108553				8					
				124742				9					
649.4901 *649 4901* Upper Cutter Assy		Manufactured	No				Each	15.0000	**	1			DAS 6 9-89 DAS 28 9-89
				<u>Location</u>				<u>Loc Qty</u>		<u>Loc Code</u>			
				CCK025				15					
				106318				2					
				108550				7					
				124739				2					
				124740				2					
				128190				2					
649.5010 *649 5010* Deflector		Manufactured	No				Each	9.0000	**	1			DAS 6 9-89 DAS 28 9-89
				<u>Location</u>				<u>Loc Qty</u>		<u>Loc Code</u>			
				cck008				9					
				109536				8					
				m127615				1					

AUG 18 2016

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY			
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐
Past Expiry Date ☐	Manufacturing Process ☐				
Misidentified ☐	Past Due ☐	OTHER :			

Picklist Print

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Work Order ID: 149881

149881

Parent Item: 649.4701

649 4701

Parent Item Name: AW119 Cable Cutter System

Start Date: 8/26/2016

Required Date: 9/2/2016 **DAS 6 28 9-89**

Start Qty: 1.00

Required Qty: 1.00

649.5214 Manufactured No

Each 6.0000 1

649 5214

Bracket

Location

Loc Qty

Loc Code

cck125

6

109705

6

Each

6.0000

1

649.5212

Manufactured No

649 5212

Bracket

Location

Loc Qty

Loc Code

cck125

6

109704

6

Each

7.0000

1

649.4811

Manufactured No

649 4811

Clip

Location

Loc Qty

Loc Code

CCK121

7

92928

7

Each

16.0000

2

649.5012

Manufactured No

649 5012

Deflector

Location

Loc Qty

Loc Code

CCK124

16

108969

14

m127615

2

AUG 18 2016

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :				MRB (QSI042) Approval	
Description Work Order Deviation				Disposition				Completed By	
								Lead hand / Supervisor Approval Verification	
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____							
Misidentified ☐	Past Due ☐								

Picklist Print

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Work Order ID: 149881

149881

Parent Item: 649.4701

649 4701

Parent Item Name: AW119 Cable Cutter System

Start Date: 8/26/2016

Required Date: 9/2/2016

Start Qty: 1.00

Required Qty: 1.00

649.5013 Manufactured No

Each

18.0000

2

649 5013

Deflector

Location

Loc Qty

Loc Code

CCK063

18

109385

18

649.5011 Manufactured No

Each

9.0000

1

649 5011

Deflector

Location

Loc Qty

Loc Code

CCK124

9

109551

9

649.5210 Manufactured No

Each

1.0000

2

649 5210

Doubler

Location

Loc Qty

Loc Code

cck125

1

131149

1

649.4814 Manufactured No

Each

12.0000

2

649 4814

Doubler

Location

Loc Qty

Loc Code

CCK121

12

131033

6

92931

6

DAS 28 9-89
DAS 6 9-89

AUG 10 2016

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY			
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐
Past Expiry Date ☐	Manufacturing Process ☐				
Misidentified ☐	Past Due ☐	OTHER : _____			

Picklist Print

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Work Order ID: 149881

149881

Parent Item: 649.4701

649 4701

Parent Item Name: AW119 Cable Cutter System

Start Date: 8/26/2016

Required Date: 9/2/2016

Start Qty: 1.00 *ECN 16-628* Required Qty: 1.00

649.4816 Manufactured No Each 10.0000

649 4816

Doubler

*DAS
27
9-89*

Location

Loc Qty

Loc Code

CCK063

10

126245

10

Each

29.0000

3 AUG 11 2016 SH

*DAS
28
6
9-89*

601.3493 Manufactured No

601 3493

Quick Release Pin

*DAS
27
9-89*

Location

Loc Qty

Loc Code

cck101

29

m127615

29

Each

32.0000

3
2

*DAS
28
6
9-89*

649.5211 Manufactured No

649 5211

Shim

*DAS
27
9-89*

Location

Loc Qty

Loc Code

cck125

32

108557

20

126246

12

Each

22.0000

2
1

*DAS
28
6
9-89*

649.4813 Manufactured No

649 4813

Shim

*DAS
27
9-89*

Location

Loc Qty

Loc Code

CCK121

22

92930

22

*4 SH AUG 11 2016
ECN 16-628*

AUG 1 8 2016

*DAS
28
6
9-89*

Friday, August 05, 2016 2:49:37 PM

Shop Packet Print

Page 4

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval 		
Description Work Order Deviation				Disposition					
							Completed By		
							Lead hand / Supervisor Approval Verification		
							QC / QA Coordinator Approval		

Root Cause				FAULT CATEGORY			
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐		
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐		
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐		
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐		
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐		
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐		
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐		
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐		
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐		
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐		
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____					
Misidentified ☐	Past Due ☐						

Picklist Print

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Work Order ID: 149881

149881

Parent Item: 649.4701

649 4701

Parent Item Name: AW119 Cable Cutter System

Start Date: 8/26/2016

Required Date: 9/2/2016

Start Qty: 1.00

Required Qty: 1.00

649.5213 Manufactured No

Each 13.0000 2

649 5213

Doubler

Location

Loc Qty

Loc Code

cck125

13

108558

7

131093

6

Each

11.0000

649.4812 Manufactured No

649 4812

Shim

Location

Loc Qty

Loc Code

CCK062

11

131150

8

92929

3

Each

20.0000

649.4815 Manufactured No

649 4815

Shim

Location

Loc Qty

Loc Code

CCK062

20

92932

9

m127615

11

Each

15.0000

646.9910 Manufactured No

646 9910

Struts

Location

Loc Qty

Loc Code

CCK014

15

142643

15

Each

15.0000

649.4817

Shim x 4

ECN 16-628

AUG 11 2016

AUG 18 2016

B 149417

9

9

AUG 30 2016

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Shop Packet Print

Page 5

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :				MRB (QSI042) Approval 	
Description Work Order Deviation				Disposition					
								Completed By	
								Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	

Root Cause			FAULT CATEGORY							
Environment	☐	No Re-verification	☐	Pressure/Forced	☐	Temperature/Cure	☐	Power Loss/Surge	☐	Positioned Wrong
Design	☐	Operator	☐	Bending	☐	Set-up	☐	Folio/Program	☐	Outside Dimensions
Doc/Data	☐	Offset/Setup	☐	Centre Not Concentric	☐	BOM/Route	☐	Grain	☐	Over/Under tolerance
Equip/Tooling	☐	Supplier	☐	Cracks	☐	Broken/Damage/Defect	☐	Weld	☐	Part Incorrect
Handling/Pre	☐	Training	☐	Crimp/Kink/Ripple/Wave	☐	Inspection Incomplete/Unqualified	☐	Wrong Stock Pulled	☐	Part Lost/Missing
Material	☐	Use for Testing	☐	Cuffs	☐	Contamination	☐	Out of Sequence	☐	Part Moved
Internal Transport	☐	Poor Information	☐	Crushing	☐	Countersink	☐	Off-set	☐	Drawing
Tribal Knowledge	☐	Rushing	☐	Heat Treat	☐	Cut Too Short	☐	Mislabeled	☐	Finish
LOA	☐	Product Improvement	☐	Wave/Twist in Tube	☐	Instructions Incomplete/Unclear	☐	Fit/Function	☐	Misread
Substation	☐	Process Improvement	☐	Marks/Chatter	☐	Drill Holes	☐	Misaligned/off center	☐	Turning Sequence
Past Expiry Date	☐	Manufacturing Process	OTHER :							
Misidentified	☐	Past Due								

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Work Order ID: 149881

149881

Parent Item: 649.4701

649 4701

Parent Item Name: AW119 Cable Cutter System

Start Date: 8/26/2016

Required Date: 9/2/2016

Start Qty: 1.00

Required Qty: 1.00

647.9014 Manufactured No

Each

138.0000

8

647 9014

Strut Bracket

DAS
6 28
9-89 9-89

DAS
27
9-89

Location

Loc Qty

Loc Code

cck023a

120

93290

120

cck117

18

93290

18

Each

28.0000

2

649.5110

Manufactured No

649 5110

Wiper Deflector

DAS DAS
6 28
9-89 9-89

DAS
27
9-89

Location

Loc Qty

Loc Code

CCK032a

28

108877

28

Each

13.0000

1

649.5111

Manufactured No

649 5111

LH Wiper Deflector

DAS
28
9-89

DAS
27
9-89

Location

Loc Qty

Loc Code

CCK064

13

108618

6

108619

3

126882

4

Each

15.0000

1

649.5112

Manufactured No

649 5112

Wiper Deflector

DAS
28
9-89

DAS
27
9-89

Location

Loc Qty

Loc Code

CCK064

15

108918

13

129406

2

DAS
6
9-89

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DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : ☐					

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Work Order ID: 149881

149881

Parent Item: 649.4701

649 4701

Parent Item Name: AW119 Cable Cutter System

Start Date: 8/26/2016

Required Date: 9/2/2016

Start Qty: 1.00

Required Qty: 1.00

AN3C12A Purchased No

Each 120.0000 8

AN3C12A

Bolt

DAS 28
68 9-89

DAS 27
9-89

Location

Loc Qty

Loc Code

GA

43

M128727

9

M133990

34

OVER002

75

M134955

75

ST349

2

M133790

2

AN4C5A Purchased No

Each 85.0000 4

AN4C5A

Bolt

DAS 28
628 9-89

DAS 27
9-89

Location

Loc Qty

Loc Code

FP001

49

m133990

49

ST345

36

m134478

36

AN4C7A Purchased No

Each 56.0000 2

AN4C7A

BOLT

DAS 28
628 9-89

DAS 27
9-89

Location

Loc Qty

Loc Code

ST345

56

m134861

56

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DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐
OTHER : ☐					

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Work Order ID: 149881

149881

Parent Item: 649.4701

649 4701

Parent Item Name: AW119 Cable Cutter System

Start Date: 8/26/2016

Required Date: 9/2/2016

Start Qty: 1.00

Required Qty: 1.00

NAS1097AD-4-3 Purchased No

Each 3,633.000 2

NAS1097AD-4-3

Cherry Rivet

PC
DAS 28
6 9-89

DAS
27
9-89

Location

Loc Qty

Loc Code

ST267

3633

123648

3556

m127615

77

Each

100.0000

16

CR3213-5-03 Purchased No

CR3213-5-03

Cherry Rivet

134142

PC
DAS 28
6 9-89

DAS
27
9-89

Location

Loc Qty

Loc Code

CCK003

100

m134754

100

Each

16.0000

29

CR3213-4-05 Purchased No

CR3213-4-05

RIVET

134852

PC
DAS 28
6 9-89

DAS
27
9-89

Location

Loc Qty

Loc Code

ST319

16

m135135

16

Each

91.0000

20

CR3213-5-05 Purchased No

CR3213-5-05

Cherry Rivet

PC
DAS 28
6 9-89

DAS
27
9-89

Location

Loc Qty

Loc Code

ST319

91

123648

91

20

ALL 1 8 2016

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DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY			
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐
Past Expiry Date ☐	Manufacturing Process ☐				
Misidentified ☐	Past Due ☐	OTHER :			

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Work Order ID: 149881

149881

Parent Item: 649.4701

649 4701

Parent Item Name: AW119 Cable Cutter System

Start Date: 8/26/2016

Required Date: 9/2/2016

Start Qty: 1.00

Required Qty: 1.00

CR3213-6-12

Purchased

No

Each

593.0000

31

CR3213-6-12

RIVET

DAS
28
6-28
9-89

Location

Loc Qty

Loc Code

CCK003

200

m127410

200

ST318

393

123845

389

m127615

4

31

DAS
27
9-89

CR3214-5-02

Purchased

No

Each

80.0000

2

CR3214-5-02

Cherry Rivet

DAS
28
6-28
9-89

Location

Loc Qty

Loc Code

ST318

80

123648

80

2

DAS
27
9-89

NAS1832-3-7

Purchased

No

Each

302.0000

8

NAS1832-3-7

Insert

DAS
28
6-28
9-89

Location

Loc Qty

Loc Code

ST548

302

123694

60

m127432

50

m127615

192

8

DAS
27
9-89

NAS1832-4-7

Purchased

No

Each

42.0000

2

NAS1832-4-7

Insert

DAS
28
6-28
9-89

Location

Loc Qty

Loc Code

ST548

42

123758

38

m127615

4

2

DAS
27
9-89

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DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : _____					

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : ☐					

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Work Order ID: 149881

149881

Parent Item: 649.4701

649 4701

Parent Item Name: AW119 Cable Cutter System

Start Date: 8/26/2016

Required Date: 9/2/2016

Start Qty: 1.00

Required Qty: 1.00

MS21042L4

Purchased

No

Each

1,900.000

1

MS21042L 4

Locknut

de

DAS 28
DAS 6 9-89
9-89

DAS
27
9-89

Location

Loc Qty

Loc Code

FP001

51

m133363

51

GA

424

m133769

116

m135058

308

ST3003

26

m134955

26

ST303

1399

m135127

423

m135297

976

MS21059-3

Purchased

No

Each

505.0000

6

MS21059-3

Nut Plate

Pl

DAS 28
DAS 6 9-89
9-89

DAS
27
9-89

Location

Loc Qty

Loc Code

CA

6

123301

6

ST301

499

123023

50

123900

449

MS20426AD3-5

Purchased

No

Each

4,115.000

12

MS20426AD3-5

Rivet

[Signature]

DAS 28
DAS 6 9-89
9-89

DAS
27
9-89

Location

Loc Qty

Loc Code

GA

4052

4533

4052

ST312

63

4444

63

12

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DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
		OTHER : ☐			

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Work Order ID: 149881

149881

Parent Item: 649.4701

649 4701

Parent Item Name: AW119 Cable Cutter System

Start Date: 8/26/2016

Required Date: 9/2/2016

Start Qty: 1.00

Required Qty: 1.00

MS20470AD4-3 Purchased No

Each 385.0000 23

MS20470AD4-3

Rivet - Universal Head

**

PC

DAS 28 9-89
DAS 6 9-89

DAS 27 9-89

Location Loc Qty Loc Code

GA 284

2193 284

ST310 101

2193 101

Each 338.0000 4

MS20470AD5-9 Purchased No

MS20470AD5-9

Rivet

**

PC

DAS 28 9-89
DAS 6 9-89

DAS 27 9-89

Location Loc Qty Loc Code

ST309 338

m123900 14

m125807 46

m127615 278

Each 1,054.000 8

MS20470AD5-11 Purchased No

MS20470AD5-11

Rivet

**

PC

DAS 28 9-89
DAS 6 9-89

DAS 27 9-89

Location Loc Qty Loc Code

CCK004 189

m127615 189

ST309 865

107100 865

Each 80.0000 2

MS24694-S57 Purchased No

MS24694-S57

Screw

**

PC

DAS 28 9-89
DAS 6 9-89

DAS 27 9-89

Location Loc Qty Loc Code

ST283 80

M127380 80

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DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :				MRB (QSI042) Approval	
Description Work Order Deviation				Disposition				Completed By	
								Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐	OTHER :							
Misidentified ☐	Past Due ☐								

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Work Order ID: 149881

149881

Parent Item: 649.4701

649 4701

Parent Item Name: AW119 Cable Cutter System

Start Date: 8/26/2016

Required Date: 9/2/2016

Start Qty: 1.00

Required Qty: 1.00

MS24694-S13

Purchased

No

Each

73.0000

3

MS24694-S13

Screw

DAS
27
9-89

**

DAS
6 28
9-89 9-89

Location

Loc Qty

Loc Code

ST284

73

123648

73

3

MS24694-S58

Purchased

No

Each

78.0000

2

MS24694-S58

SCREW

DAS
27
9-89

**

PC

DAS
6 28
9-89 9-89

Location

Loc Qty

Loc Code

ST283

78

m131317

78

2

MS27039-1-18

Purchased

No

Each

1,773.000

4

MS27039-1-18

Screw

DAS
27
9-89

**

PC

DAS
6 28
9-89 9-89

Location

Loc Qty

Loc Code

GA

247

123522

51

124326

196

over006

1371

124326

1371

ST280

155

124326

155

4

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DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐
OTHER : _____					

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Work Order ID: 149881

149881

Parent Item: 649.4701

649 4701

Parent Item Name: AW119 Cable Cutter System

Start Date: 8/26/2016

Required Date: 9/2/2016

Start Qty: 1.00

Required Qty: 1.00

MS27039-1-14

Purchased

No

Each

735.0000

4

MS27039-1-14

Screw

PC

DAS 6 28 9-89

DAS 27 9-89

Location

Loc Qty

Loc Code

GA
120449
over006
124326
ST280
124326

94
94
500
500
141
141

Each

291.0000

3

z

DAS 6 28 9-89

MS27039-08-24

Purchased

No

MS27039-08-24

Screw (MS27039-0824)

DAS 27 9-89

Location

Loc Qty

Loc Code

GA
124326
ST277
125654

279
279
12
12

Each

615.0000

13

PK

DAS 6 28 9-89

MS27039-1-13

Purchased

No

MS27039-1-13

Screw

DAS 27 9-89

Location

Loc Qty

Loc Code

GA
124326
over006
124326
ST280
125654

70
70
295
295
250
250

Each

615.0000

13

AUG 1

DAS 6 28 9-89

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval 		
Description Work Order Deviation				Disposition					
								Completed By	
								Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	

Root Cause			FAULT CATEGORY							
Environment	☐	No Re-verification	☐	Pressure/Forced	☐	Temperature/Cure	☐	Power Loss/Surge	☐	Positioned Wrong
Design	☐	Operator	☐	Bending	☐	Set-up	☐	Folio/Program	☐	Outside Dimensions
Doc/Data	☐	Offset/Setup	☐	Centre Not Concentric	☐	BOM/Route	☐	Grain	☐	Over/Under tolerance
Equip/Tooling	☐	Supplier	☐	Cracks	☐	Broken/Damage/Defect	☐	Weld	☐	Part Incorrect
Handling/Pre	☐	Training	☐	Crimp/Kink/Ripple/Wave	☐	Inspection Incomplete/Unqualified	☐	Wrong Stock Pulled	☐	Part Lost/Missing
Material	☐	Use for Testing	☐	Cuffs	☐	Contamination	☐	Out of Sequence	☐	Part Moved
Internal Transport	☐	Poor Information	☐	Crushing	☐	Countersink	☐	Off-set	☐	Drawing
Tribal Knowledge	☐	Rushing	☐	Heat Treat	☐	Cut Too Short	☐	Mislabeled	☐	Finish
LOA	☐	Product Improvement	☐	Wave/Twist in Tube	☐	Instructions Incomplete/Unclear	☐	Fit/Function	☐	Misread
Substation	☐	Process Improvement	☐	Marks/Chatter	☐	Drill Holes	☐	Misaligned/off center	☐	Turning Sequence
Past Expiry Date	☐	Manufacturing Process	☐	OTHER : 						
Misidentified	☐	Past Due	☐							

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Work Order ID: 149881

149881

Parent Item: 649.4701

649 4701

Parent Item Name: AW119 Cable Cutter System

Start Date: 8/26/2016

Required Date: 9/2/2016

Start Qty: 1.00

Required Qty: 1.00

MS27039-08-19

Purchased

No

Each

232.0000

6

MS27039-08-19

Screw

**

408
13523

PC

DAS
28
9-89

DAS
6
9-89

DAS
27
9-89

Location

Loc Qty

Loc Code

GA

232

m132930

84

m133077

22

m134063

64

m135046

62

MS27039-1-25

Purchased

No

Each

124.0000

2

MS27039-1-25

Screw

**

PC

DAS
28
9-89

DAS
6
9-89

DAS
27
9-89

Location

Loc Qty

Loc Code

over006

100

m127432

100

ST279

24

102602

24

MS27039-1-08

Purchased

No

Each

378.0000

4

MS27039-1-08

Screw

**

PC

DAS
28
9-89

DAS
6
9-89

DAS
27
9-89

Location

Loc Qty

Loc Code

FP001

73

m128636

73

GA

72

125654

1

m128636

71

ST281

233

m134762

233

AUG 18 2016

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY			
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐
Past Expiry Date ☐	Manufacturing Process ☐				
Misidentified ☐	Past Due ☐	OTHER : _____			

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Work Order ID: 149881

149881

Parent Item: 649.4701

649 4701

Parent Item Name: AW119 Cable Cutter System

Start Date: 8/26/2016

Required Date: 9/2/2016

Start Qty: 1.00

Required Qty: 1.00

MS27039-1-10

Purchased

No

Each

112.0000

6

MS27039-1-10

SCREW

**

PC

DAS
6 28
9-89 9-89

DAS
27
9-89

Location

Loc Qty

Loc Code

GA

14

m129541

14

ST280

98

m134676

98

6

AN970-3

Purchased

No

Each

153.0000

2

AN970-3

Washers

**

PC

DAS
6 28
9-89 9-89

DAS
27
9-89

Location

Loc Qty

Loc Code

ST321

153

m128057

3

m129630

150

2

NAS1149F0332P

Purchased

No

Each

1,767.000

53

NAS1149F0332P

Washer

**

PC

DAS
6 28
9-89 9-89

DAS
27
9-89

Location

Loc Qty

Loc Code

GA

282

m133709

282

ST262

1485

m134257

37

m134676

19

m135058

1429

53

PC

AUG 18 2016

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval 		
Description Work Order Deviation				Disposition					
							Completed By		
							Lead hand / Supervisor Approval Verification		
							QC / QA Coordinator Approval		

Root Cause				FAULT CATEGORY							
Environment	☐		No Re-verification	☐	Pressure/Forced	☐	Temperature/Cure	☐	Power Loss/Surge	☐	Positioned Wrong
Design	☐		Operator	☐	Bending	☐	Set-up	☐	Folio/Program	☐	Outside Dimensions
Doc/Data	☐		Offset/Setup	☐	Centre Not Concentric	☐	BOM/Route	☐	Grain	☐	Over/Under tolerance
Equip/Tooling	☐		Supplier	☐	Cracks	☐	Broken/Damage/Defect	☐	Weld	☐	Part Incorrect
Handling/Pre	☐		Training	☐	Crimp/Kink/Ripple/Wave	☐	Inspection Incomplete/Unqualified	☐	Wrong Stock Pulled	☐	Part Lost/Missing
Material	☐		Use for Testing	☐	Cuffs	☐	Contamination	☐	Out of Sequence	☐	Part Moved
Internal Transport	☐		Poor Information	☐	Crushing	☐	Countersink	☐	Off-set	☐	Drawing
Tribal Knowledge	☐		Rushing	☐	Heat Treat	☐	Cut Too Short	☐	Mislabeled	☐	Finish
LOA	☐		Product Improvement	☐	Wave/Twist in Tube	☐	Instructions Incomplete/Unclear	☐	Fit/Function	☐	Misread
Substation	☐		Process Improvement	☐	Marks/Chatter	☐	Drill Holes	☐	Misaligned/off center	☐	Turning Sequence
Past Expiry Date	☐		Manufacturing Process	☐	OTHER :						
Misidentified	☐		Past Due	☐							

Picklist Print

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Friday, August 05, 2016 2:49:37 PM

Work Order ID: 149881

149881

Parent Item: 649.4701

649 4701

Parent Item Name: AW119 Cable Cutter System

Start Date: 8/26/2016

Required Date: 9/2/2016

Start Qty: 1.00

Required Qty: 1.00

NAS1149FN832P

Purchased

No

Each

1,982.000

23

NAS1149FN832P

Washer

DAS 6 28 9-89

DAS 27 9-89

Location

Loc Qty

Loc Code

GA

1705

M133316

16

M133769

89

M135058

1600

ST263

277

M134257

277

23

NAS1149F0432P

Purchased

No

Each

1,095.000

8

NAS1149F0432P

WASHER

DAS 6 28 9-89

DAS 27 9-89

Location

Loc Qty

Loc Code

ST260a

1000

M134955

1000

ST262

95

M134502

95

8

NAS620C-10L

Purchased

No

Each

264.0000

8

***NAS620C-10L ***

Washer

DAS 6 28 9-89

DAS 27 9-89

Location

Loc Qty

Loc Code

st552

264

123648

19

m127432

245

8

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Friday, August 05, 2016 2:49:37 PM

Shop Packet Print

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DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐
		OTHER : ☐			

Picklist Print

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Friday, August 05, 2016 2:49:37 PM

Work Order ID: 149881

149881

Parent Item: 649.4701

649 4701

Parent Item Name: AW119 Cable Cutter System

Start Date: 8/26/2016

Required Date: 9/2/2016

Start Qty: 1.00

Required Qty: 1.00

601.2045 Purchased No

Each 13.0000 1

601 2045

RTV (LOCTITE 598)McMaster p/n: 6641A41

DAS
27
9-89

Location

Loc Qty

Loc Code

CCK096

5

m135138

5

GA

8

m134260

8

DAS
28
6
9-89

600.1012 Purchased No

Each 7.0000 1

600 1012

Sealant PR1425B2 (#654 sem)

DAS
27
9-89

Location

Loc Qty

Loc Code

cck017

7

m135135

7

DAS
28
6
9-89

MS24694-S14 Purchased No

Each 83.0000 2

MS24694-S14

Screw

DAS
27
9-89

Location

Loc Qty

Loc Code

ST284

83

123648

83

DAS
28
6
9-89

NAS1149F0363P Purchased No

Each 279.0000 16

NAS1149F0363P

WASHER

DAS
27
9-89

Location

Loc Qty

Loc Code

ST262

279

124555

279

DAS
28
6
9-89

AUG 18 2016

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐
OTHER :					

APICAL INDUSTRIES, INC.	ENGINEERING CHANGE NOTICE NO. 04486				SHEET 1 OF 1	
	DWG NO. 649.4700	REV: B	PREPARED BY J. SOTO	DATE: 04/04/2014	EFFECT ON DWG ☐ INC. ☒ UNINC.	
	DWG TITLE: A119 CABLE CUTTERS KIT					
APPROVED BY: ENGR <i>[Signature]</i>		MFG <i>[Signature]</i>	QC <i>[Signature]</i>	EFF. NEXT ORDER		
TRANSACTION CODES (TC): A-ADD C-CREATE R-REVISE D-DELETE		REASON: REVISED F/N 36.				ECR: D-14-02

SHOP COPY
 RETURN TO
 ENGINEERING
 UNCONTROLLED COPY
 SUBJECT TO AMENDMENT
 WITHOUT NOTICE
 WORK ORDER
 NO. 149881

36	R	601.3008	2	INSERT	NAS1834C3-300	
F/N	TC	PART NUMBER	.4701 QTY	DESCRIPTION	MATERIAL	SPECIFICATION
DOCUMENTS EFFECTED:				CHANGE CATEGORY	DER REVIEW REQUIRED	
☐ MDL ☐ INSTALL INSTRUCTIONS ☐ ICA ☐ FMS ☒ BOM				☐ MAJOR ☒ MINOR	☐ YES ☒ NO	

dm 16/08/05

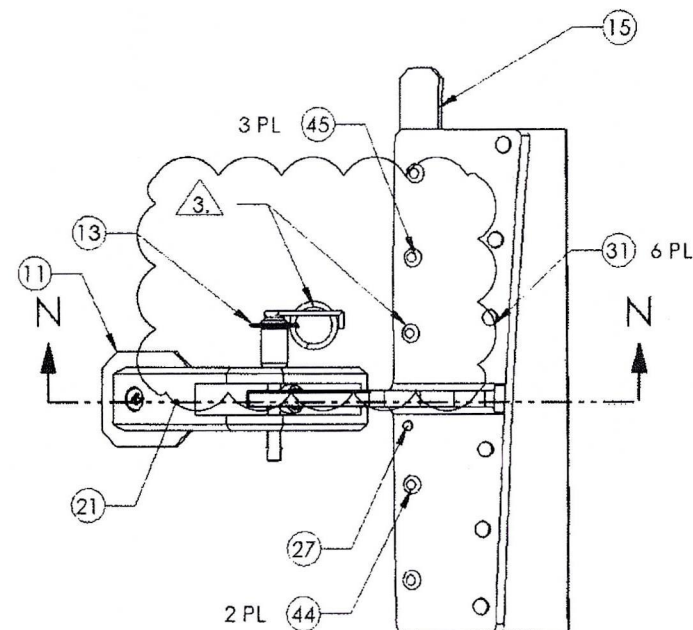
APICAL INDUSTRIES, INC.	ENGINEERING CHANGE NOTICE NO. 03885				SHEET 1 OF 1	
	DWG NO. 649.4700	REV: B	PREPARED BY J. BAINI	DATE: 05/15/13	EFFECT ON DWG ☐ INC. ☒ UNINC.	
	DWG TITLE: A119 CABLE CUTTERS KIT					
	APPROVED BY: ENGR <i>[Signature]</i>	MFG <i>[Signature]</i>	QC <i>[Signature]</i>	EFF: CURRENT ORDER		
TRANSACTION CODES (TC): A-ADD C-CREATE R-REVISE D-DELETE	REASON: UPDATED LOCATION/NOTES FOR F/N 13				ECR:	

SHEET 1, ZONE A1, IS:

NOTES:

1. APPLY F/N 62 TO FAYING SURFACES.
2. AFTER INSTALLATION, APPLY F/N 63 A/R TO FILL GAPS AND FILLET EDGES
3. MATCH DRILL HOLE ON TAB OF F/N 13 TO FIT RIVET F/N 45

SHEET 3, ZONE D4, IS:



13	R	601.3493	2		QUICK RELEASE PIN		3.
F/N	TC	PART NUMBER	.4701	QTY	DESCRIPTION	MATERIAL	SPECIFICATION
DOCUMENTS EFFECTED:						CHANGE CATEGORY	DER REVIEW REQUIRED
☐ RFMS ☐ MDL ☐ INSTALL INSTRUC ☐ ICA ☒ BOM						☐ MAJOR ☒ MINOR	☐ YES ☒ NO

APICAL INDUSTRIES, INC.	ENGINEERING CHANGE NOTICE NO. 03732				SHEET 1 OF 1	
	DWG NO. 649.4700	REV: B	PREPARED BY B. PETERS	DATE: 12/08/12	EFFECT ON DWG ☐ INC. ☒ UNINC.	
	DWG TITLE: A119 CABLE CUTTERS KIT					
APPROVED BY: ENGR <i>[Signature]</i>		MFG <i>[Signature]</i>	QC <i>[Signature]</i>	EFF: NEXT ORDER		
TRANSACTION CODES (TC) A-ADD C-CREATE R-REVISE D-DELETE		REASON: REVISED SUPPLIER PART NUMBERS ON BOM.			ECR: 12-54	

SHEET 1, BOM IS:

46	R	601.3146	2		SCREW	MS24694S57	
36	R	601.3008	2		INSERT	NAS1834C3-300	
F/N	TC	PART NUMBER	QTY		DESCRIPTION	MATERIAL	SPECIFICATION
DOCUMENTS EFFECTED:					CHANGE CATEGORY		DER REVIEW REQUIRED
☐ RFMS ☐ MDL ☐ INSTALL INSTRU ☐ ICA ☒ BOM					☐ MAJOR ☒ MINOR		☐ YES ☒ NO

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NOTES:

1. APPLY F/N 62 TO FAYING SURFACES.
2. AFTER INSTALLATION, APPLY F/N 63 A/R TO FILL GAPS AND FILLET EDGES

2/B7

DETAIL A

3/B7

DETAIL B

DETAIL D

5/B6

DETAIL C

4/B7

UNINCORPORATED ECN(S)

03732, 03845, 044210

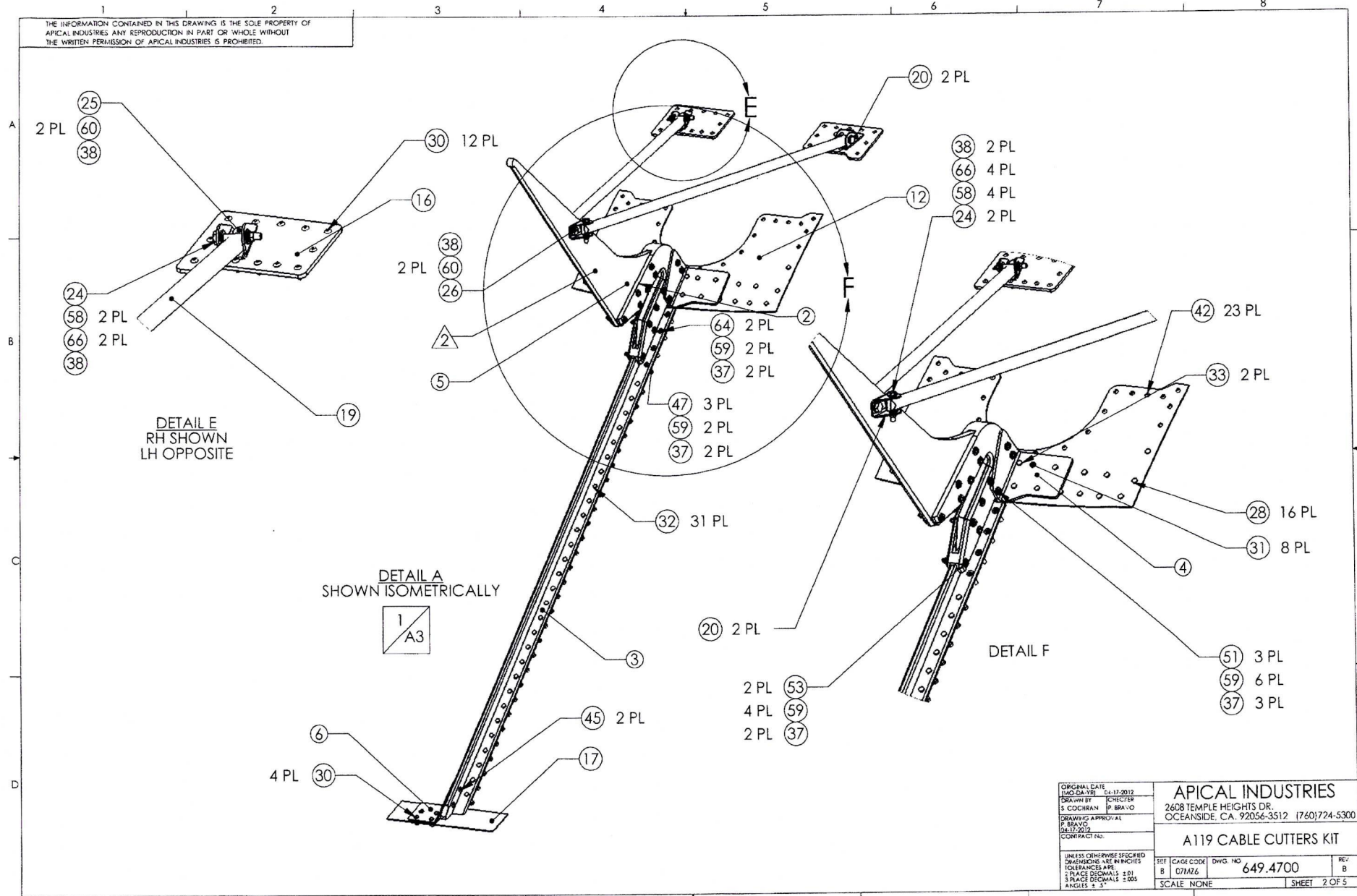
FIND #	PART #	DESCRIPTION	MATL	SPEC.
16	66	601.3151	WASHER	NAS1149F0363P
	65		DELETED	
2	64	601.3537	SCREW	MS24694-514
1	63	600.1012	SEALANT	PR-1425 CLAS B
1	62	601.2045	RTV	LOCTITE 598
8	61	601.2381	WASHER	NAS5A20C-10L
8	60	601.2638	WASHER	NAS1149F0432P
23	59	601.2764	WASHER	NAS1149F0332P
53	58	601.1607	WASHER	NAS1149F0332P
2	57	601.3470	WASHER	AN970-3
6	56	601.1365	SCREW	MS27039-1-10
4	55	601.1621	SCREW	MS27039-1-08
2	54	601.3289	SCREW	MS27039-1-25
6	53	601.2765	SCREW	MS27039-0819
13	52	601.3190	SCREW	MS27039-1-13
3	51	601.3124	SCREW	MS27039-0824
4	50	601.1622	SCREW	MS27039-1-14
4	49	601.2910	SCREW	MS27039-1-18

REV.	DESCRIPTION	DATE	APPROVED
N/C	LAST PROTOTYPE REVISION: PR2		N/C
A	INCORPORATED ECN 03444, 03489	01-26-2012	P. BRAVO
B	INCORPORATED ECN 03527	04-17-2012	P. BRAVO
		05-29-2012	P. BRAVO

QTY	REV.	PART #	DESCRIPTION	MATL	SPEC.
2	48	601.3252	SCREW	MS24694-513	
3	47	601.3536	SCREW	MS24694-513	
2	46	601.3146	SCREW	MS24694-513	
8	45	601.1125	RIVET	MS20470AD5-11	
4	44	601.2542	RIVET	MS20470AD5-9	
	43		DELETED		
23	42	601.1773	RIVET	MS20470AD4-3	
12	41	601.1616	RIVET	MS20426AD3-5	
6	40	601.1900	NUTPLATE	MS21059-3	
1	39	601.3209	LOCKNUT	MS21042L4	
25	38	601.1624	LOCKNUT	MS21042L3	
14	37	601.1541	LOCKNUT	MS21042L6	
2	36	601.3008	INSERT	NAS1834C-300	
2	35	601.3468	INSERT	NAS1832-4-7	
8	34	601.3459	INSERT	NAS1832-3-7	
2	33	601.3474	CHERRY RIVET	CR3214-5-02	
31	32	601.3496	CHERRY RIVET	CR3213-6-12	
20	31	601.3472	CHERRY RIVET	CR3213-5-05	
29	30	601.1183	CHERRY RIVET	CR3213-4-05	
	29		DELETED		
16	28	601.2020	CHERRY RIVET	CR3213-5-03	
2	27	601.3473	CHERRY RIVET	NAS1097AD-4-3	
2	26	601.2669	BOLT	ANAC7A	
4	25	601.3555	BOLT	ANAC5A	
8	24	601.0788	BOLT	AN3C12A	
1	23	649.5112	WIPER DEFLECTOR		
1	22	649.5111	WIPER DEFLECTOR		
2	21	649.5110	WIPER DEFLECTOR		
8	20	647.9014	STRUT BRACKET		
4	19	646.9910	STRUT		
3	18	649.4815	SHIM		
1	17	649.4812	SHIM		
2	16	649.5213	DOUBLER		
2	15	649.4813	SHIM		
1	14	649.5211	SHIM		
2	13	601.3493	QUICK RELEASE PIN		
1	12	649.4816	DOUBLER		
2	11	649.4814	DOUBLER		
2	10	649.5210	DOUBLER		
1	9	649.5011	DEFLECTOR		
2	8	649.5013	DEFLECTOR		
2	7	649.5012	DEFLECTOR		
1	6	649.4811	CUP		
1	5	649.5212	BRACKET		
1	4	649.5214	BRACKET		
1	3	649.5010	DEFLECTOR		
1	2	649.4901	UPPER CUTTER ASSY		
1	1	649.4902	LOWER CUTTER ASSY		
		649.4701	A119 CABLE CUTTERS KIT		

ORIGINAL DATE: 04-17-2012		DRAWN BY: J. COCHRAN		CHECKED: P. BRAVO	
NEXT ASSY (S):		DRAWING APPROVAL: P. BRAVO		DATE: 04-17-2012	
UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES		TOLERANCES ARE:		3 PLACE DECIMALS ±0.03	
APICAL INDUSTRIES		2608 TEMPLE HEIGHTS DR.		OCEANSIDE, CA. 92056-3512 (760)724-5300	
A119 CABLE CUTTERS KIT		DWG. NO. 649.4700		REV. B	
SCALE: NONE		SHEET 1 OF 5			

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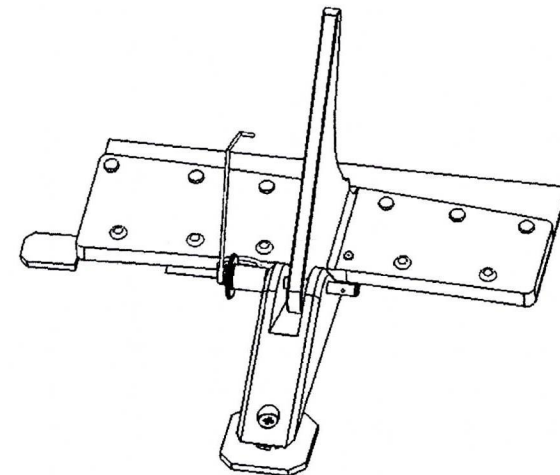
ORIGINAL DATE 12/03/2012		APICAL INDUSTRIES	
DRAWN BY S. COCHRAN		2608 TEMPLE HEIGHTS DR. OCEANSIDE, CA. 92056-3512 (760) 724-5300	
CHECKED BY P. BRAVO		A119 CABLE CUTTERS KIT	
DRAWING APPROVAL P. BRAVO		SCALE NONE	
DATE 06-17-2012		SHEET 2 OF 5	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 1 PLACE DECIMALS ±.01 2 PLACE DECIMALS ±.005 ANGLES ±.5°		REV B	REV B
SEE B	CAGE CODE 07M26	DWG. NO. 649.4700	

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C C

22 SHOWN
23 OPPOSITE

55
57
58
38
48
36
58
38



DETAIL B
SHOWN ISOMETRICALLY
RH SHOWN
LH OPPOSITE

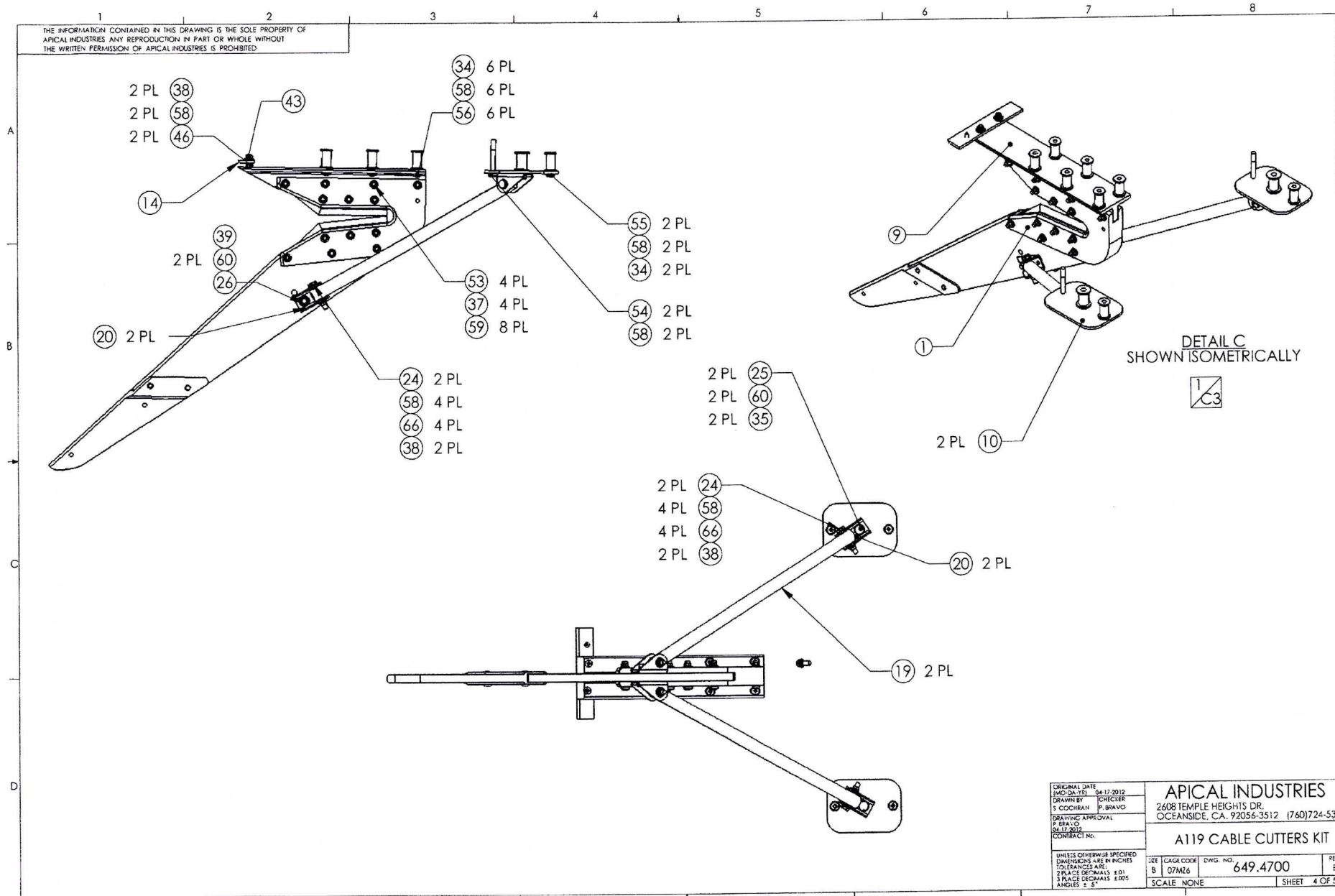
1/B2

SECTION N-N

15
3 PL 45
31 6 PL
11
13
21
27
2 PL 44

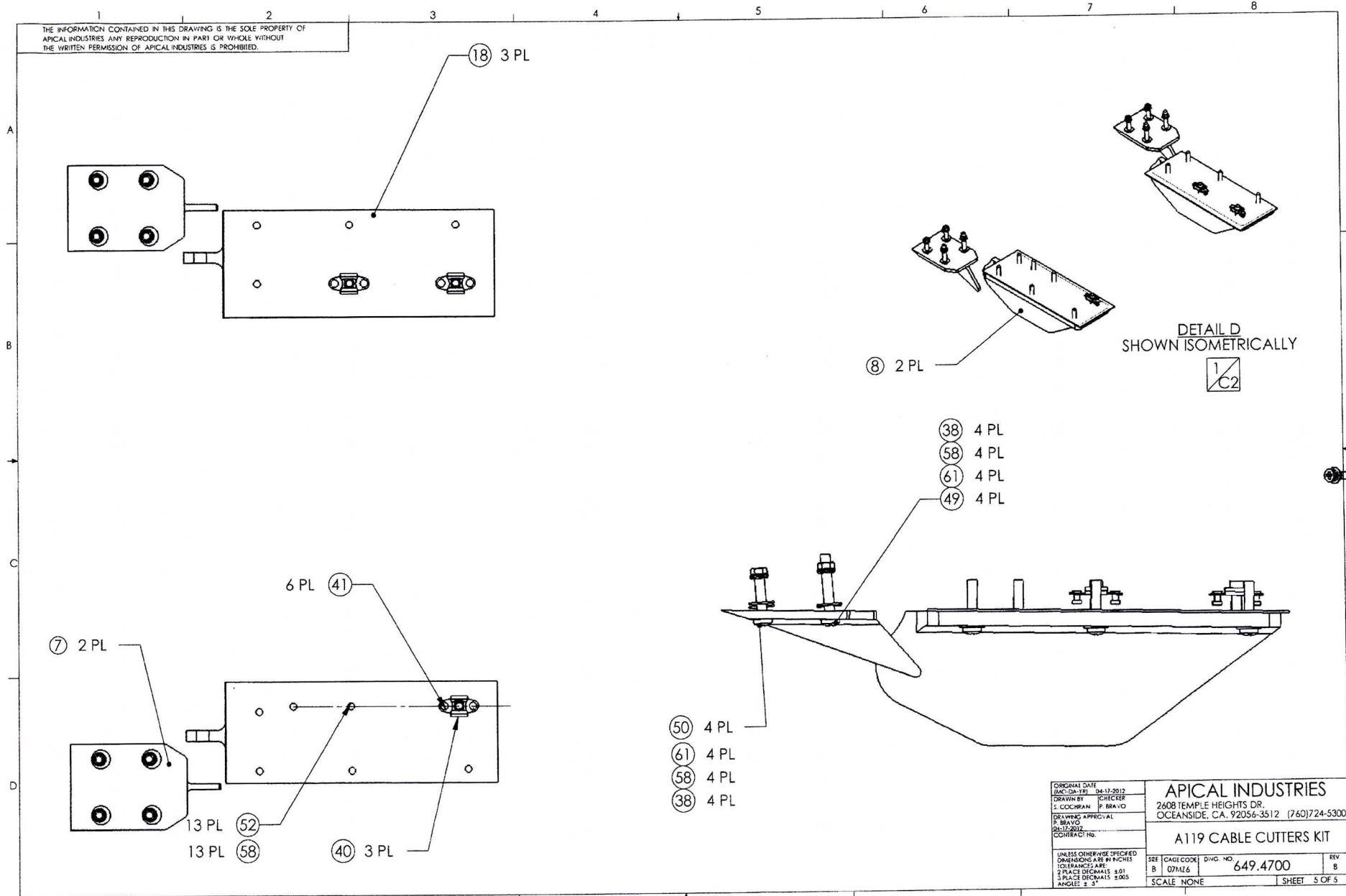
ORIGINAL DATE 10/01/01		APICAL INDUSTRIES	
DRAWN BY S. COCHRAN		2608 TEMPLE HEIGHTS DR. OCEANSIDE, CA. 92056-3512 (760)724-5300	
CHECKED BY P. BRAVO		A119 CABLE CUTTERS KIT	
DRAWING APPROVAL P. BRAVO		SEE CAGE CODE B 071A26	REV. B
CONTRACT NO.		DWG. NO. 649.4700	SHEET 3 OF 3
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMALS ±.01 3 PLACE DECIMALS ±.005 ANGLES ±.5°		SCALE NONE	

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ORIGINAL DATE UNDO-DATED 04/17/2012		APICAL INDUSTRIES	
DRAWN BY S COCHRAN P. BRAVO		2608 TEMPLE HEIGHTS DR. OCEANSIDE, CA. 92056-3512 (760)724-5300	
DRAWING APPROVAL P. BRAVO 04/17/2012		A119 CABLE CUTTERS KIT	
CONTRACT NO.		REV. 8	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMALS ±.01 3 PLACE DECIMALS ±.005 ANGLES ±.5°		SCALE NONE	SHEET 4 OF 5

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ORIGINAL DATE (M/C-DA-YR) 04-17-2012		APICAL INDUSTRIES	
DRAWN BY S. COCHRAN		2608 TEMPLE HEIGHTS DR.	
DRAWING APPROVAL P. BRAVO		OCEANSIDE, CA. 92056-3512 (760) 724-5300	
04-17-2012		A119 CABLE CUTTERS KIT	
CONTRACT NO.		SEE CAGE CODE DWG. NO.	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES 10 DECIMALS ARE 2 PLACE DECIMALS ±.01 3 PLACE DECIMALS ±.003 ANGLE 5°		B 071126 649.4700	
SCALE NONE		SHEET 5 OF 5	

ENGINEERING CHANGE NOTICE

DART AEROSPACE LTD

Date: 16.08.10	Job No.:	ADR Yes/No:	ADR Date:	ECN #: 16- 628
Product No.: Apical 119-2		Created By: KJ	Approved By: <i>CA</i>	
Product Name: Cable Cutters		Checked By: <i>AS</i>		

Distribution	Reqd	Resp	Initial / Date (YY/MM/DD)
Director of Operations	N	DM	
Production Manager / Coord.	Y	MP / MF	
Purchasing Manager / Purchasing Coord.	N	LL / CL	
Production Engineering Coord.	Y	DD / JLM	
Production Engineering Coord.	N	DL	
Customer Order Processing	N	SL / BG	

Distribution	Reqd	Resp	Initial / Date (YY/MM/DD)
DQA / QA Coord.	Y	PS / ED	
QC Coordinator	Y	PD	
Customer Support	Y	SW / LM	
Customer Technical Support	Y	MB / HS	
Marketing	N	SL / WR	
Dist. Management Coord.	N	HM	

Reason for Change:
Incorporated ECN05502

Documents Affected:
Release 649.4800 Rev B

IF APPLICABLE: NCR: _____ PAR: _____ CAR: _____ CIR: _____ URF: _____

PAPERWORK UPDATE ☐ PARTS MUST COMPLY ☒ PREVIOUS PARTS SATISFACTORY ☐

#	Quality Assurance Actions	Reqd	Resp	Notes	Complete
1	Notify Previous Customers	N			
2	Notify Eurocopter France	N			
3	Notify Augusta Westland	N			
4	Manufacturing Licensing Agreement Update	N			

#	Engineering Actions	Reqd	Resp	Notes	Complete
5	Required Documents/Drawings/Item ID's Under Review (URF)	N			
6	Update Master Document List (MDL)	N			
7	Update Document Record (DR)	N			
8	Update Product Compatability Matrix	N			
9	Notify TC / FAA of Change (eg. ICA, 8110-3)	N			
10					

#	Document Control Actions	Reqd	Resp	Notes	Complete
11	Move / Update Electronic Files / Design Journal	N			
12	Update Product Specification Files (Bluefiles)	N			
13	Update Approved/Preliminary Dwg PDF Files	Y	KJ		16.08.11 <i>AS</i>
14	Update Product Development Summary (STC applications)	N			
15	Update QSI 021 (TC/FAA STC) and/or STC Approval List	N			
16	Create/Update Parts / STC Database	N			
17	Update / Verify Airworthiness Release Certificate Database	N			
18	Create / Update Change Record Form / Item Card Database	N			
19	Create / Update Packaging Process Plan (PPP)	N			
20	Red Decals required on Packaging Process Plan (PPP)?	N			
21	Update Controlled Supplier Documents (Qpulse) Database	N			
22	Update Grey Project Binder / Electronic Project Folder	N			
23	Update D-Part / M-Drawing / DSI / DEO Master Binders	N			
24	Update "Royalty Paid to" attribute (Parts sold under Dart USA STC's)	N			
25					

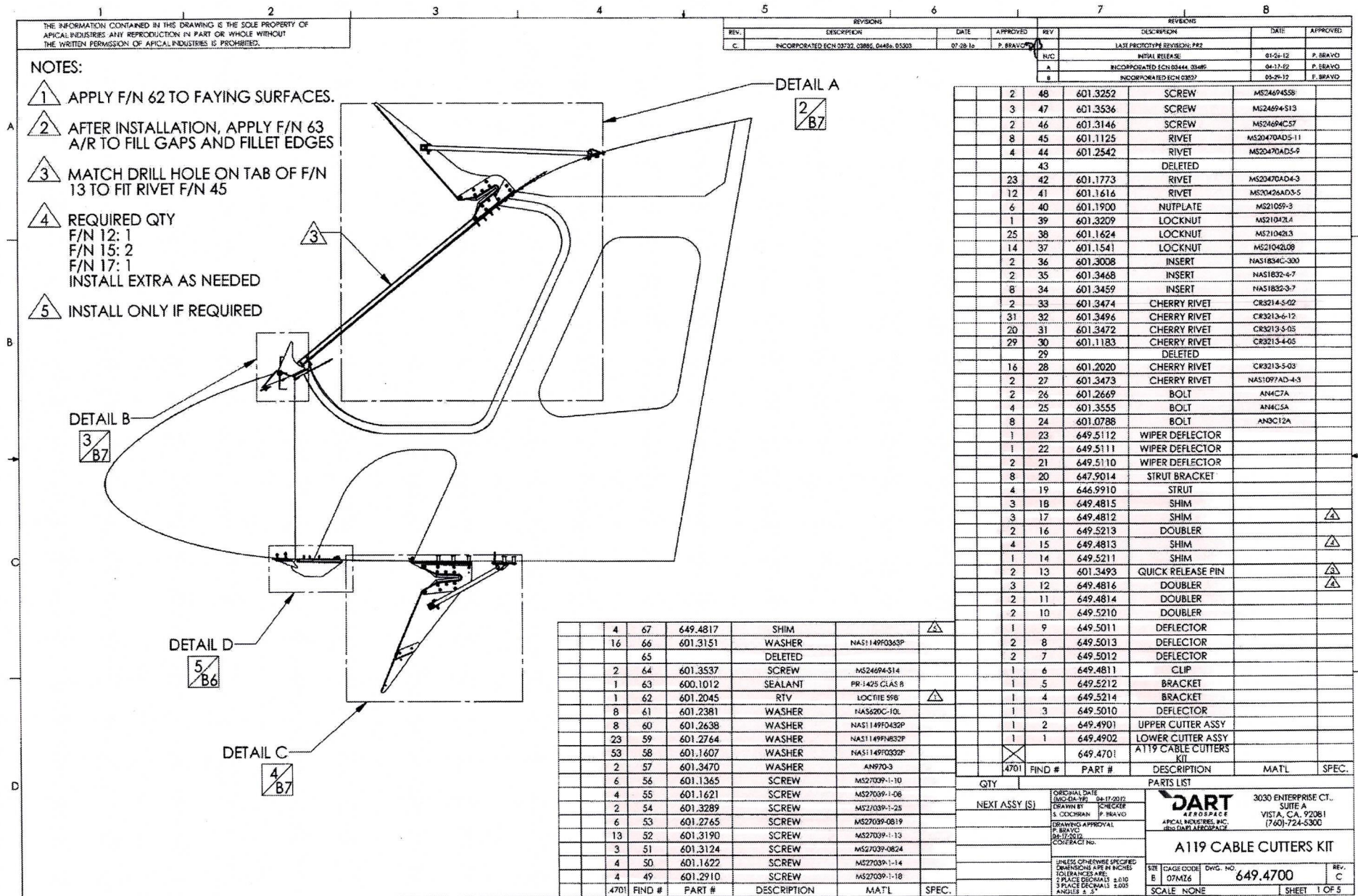
Description / Action:

Update BOM's and Routes per latest approved drawing

ECN Verified & Complete: _____ Date: _____

Status	Item ID	Rev	Name	Start Date	Quantity	P	UOM	Sort	Source	Seq	Scrap	%	Comment	Date Last Mod	Add Date	Stop Date
	600.1012		Sealant PR1425B2 (#654 sem)	11/05/2012	1.0000	Ea	63				0 %		11/05/2012 10:07...	11/0...		
	601.2045		RTV (LOCTITE 598)McMaster p/n: 6641A41	11/05/2012	1.0000	Ea	62				0 %		11/05/2012 10:07...	11/0...		
	601.3493		Quick Release Pin	11/05/2012	2.0000	Ea	13				0 %		11/05/2012 9:46 PM	11/0...		
	646.9910		Struts	11/05/2012	4.0000	Ea	19				0 %		11/05/2012 9:46 PM	11/0...		
	647.9014		Strut Bracket	11/05/2012	8.0000	Ea	20				0 %		11/05/2012 9:46 PM	11/0...		
	649.4811		Clip	11/05/2012	1.0000	Ea	6				0 %		11/05/2012 9:46 PM	11/0...		
Qty Change	649.4812		Shim x2	11/05/2012	3.0000	Ea	17				0 %		08/11/2016 8:23 AM	11/0...		
Qty Change	649.4813		Shim x2	11/05/2012	4.0000	Ea	15				0 %		08/11/2016 8:23 AM	11/0...		
	649.4814		Doubler	11/05/2012	2.0000	Ea	11				0 %		11/05/2012 9:46 PM	11/0...		
	649.4815		Shim	11/05/2012	3.0000	Ea	18				0 %		11/05/2012 9:46 PM	11/0...		
	649.4816		Doubler x2	11/05/2012	3.0000	Ea	12				0 %		08/11/2016 8:23 AM	11/0...		
New	649.4817		Shim x4	08/11/2016	4.0000	Ea	67				0 %		08/11/2016 8:23 AM	08/1...		
	649.4901		Upper Cutter Assy	11/05/2012	1.0000	Ea	2				0 %		11/05/2012 9:46 PM	11/0...		
	649.4902		Lower Cutter Assy	11/05/2012	1.0000	Ea	1				0 %		11/05/2012 9:46 PM	11/0...		
	649.5010		Deflector	11/05/2012	1.0000	Ea	3				0 %		11/05/2012 9:46 PM	11/0...		
	649.5011		Deflector	11/05/2012	1.0000	Ea	9				0 %		11/05/2012 9:46 PM	11/0...		
	649.5012		Deflector	11/05/2012	2.0000	Ea	7				0 %		11/05/2012 9:46 PM	11/0...		
	649.5013		Deflector	11/05/2012	2.0000	Ea	8				0 %		11/05/2012 9:46 PM	11/0...		
	649.5110		Wiper Deflector	11/05/2012	2.0000	Ea	21				0 %		11/05/2012 9:46 PM	11/0...		
	649.5111		LH Wiper Deflector	11/05/2012	1.0000	Ea	22				0 %		11/05/2012 9:46 PM	11/0...		
	649.5112		Wiper Deflector	11/05/2012	1.0000	Ea	23				0 %		11/05/2012 9:46 PM	11/0...		
	649.5210		Doubler	11/05/2012	2.0000	Ea	10				0 %		11/05/2012 9:46 PM	11/0...		
	649.5211		Shim	11/05/2012	1.0000	Ea	14				0 %		11/05/2012 9:46 PM	11/0...		
	649.5212		Bracket	11/05/2012	1.0000	Ea	5				0 %		11/05/2012 9:46 PM	11/0...		
	649.5213		Doubler	11/05/2012	2.0000	Ea	16				0 %		11/05/2012 9:46 PM	11/0...		
	649.5214		Bracket	11/05/2012	1.0000	Ea	4				0 %		11/05/2012 9:46 PM	11/0...		
	AN3C12A		Bolt	11/05/2012	8.0000	Ea	24				0 %		11/05/2012 10:07...	11/0...		

REFERENCE ONLY



REFERENCE ONLY